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THE TEACHER AS BEHAVIORAL MANAGER

Abstracts of Educational Reasearch

Vol. III, No. 1

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PREFACE

Substantial attention is being focused on the problem of maintaining discipline in the public schools of Maryland as a result of mounting concerns voiced by both professional and lay groups. With ***The Teacher as Behavioral Manager,*** the Maryland State Department of Education hopes to contribute more knowledge in this problem area.

We hope that educators will find the "Abstracts" valuable. The Department also hopes that readers will suggest ways to make the series more useful and will recommend topics for inclusion in future issues.

James A. Lewenbaugh

State Superintendent of Schools

FOREWORD

The Division of Research and Development of the Maryland State Department of Education is pleased to present ***The Teacher as Behavioral Manager,*** the fifth issue in the series, "Abstracts of Educational Research." Since the problem of maintaining discipline in the public schools has been a focal point of active concern for the Department, this issue of the "Abstracts" is intended to be a continuation of the effort to understand the problem.

This issue was prepared by the Division under the direction of James B. League, Jr., Coordinator of Research, Planning and Publications, with the assistance of Marcia S. Rosenfeld, Research Analyst.

We want to thank the consultants, Gloria Neubert and Steven Warland, who located and compiled the studies among many related tasks. Thanks are also due to the Advisory Committee for the "Abstracts of Educational Research," whose membership for the present issue included Mrs. Mildred Sowers, Division of Instruction; David Osborn, Division of Certification and Accreditation; Irving W. Herrick, Division of Vocational Education; Lewin A. Wheat, Division of Federal State Programs; and James B. League, Jr., Division of Research and Development, who served as Chairman. They gave invaluable assistance in the planning of this issue.

We hope that the Abstracts will help to meet the needs of teachers and administrators for research-based knowledge in the area of behaviorial management.

Roland K. McKay

Director, Division of Research and Development

INTRODUCTION

In selecting topics for presentation in its series of "Abstracts of Educational Research," the Division of Research and Development of the Maryland State Department of Education attempts to provide educators with research findings that might be helpful in the improvement of instructional programs in Maryland. Volume III in this series reflects the current concern of public and professional groups in Maryland with the problem of maintaining discipline in the public schools.

Keenly aware of the discipline problem, Governor Spiro T. Agnew requested James A. Sensenbaugh, State Superintendent of Schools, to appoint a committee to investigate overt acts of misbehavior which occur in school. The State Committee on Discipline in the Schools, appointed November 22, 1967, engaged in a wide variety of investigatory activities, and the results of its deliberations are presented in its ***Report to the State Superintendent of Schools and the Maryland State Board of Education on Discipline in the Public Schools of Maryland,*** submitted in May 1968.

In conjunction with its recommendations, the Report discusses the need for educators to know more about human behavior as well as skills and techniques in working with students — that is, behavioral management,

It seemed timely to offer the present issue of the "Abstracts" as a contribution toward meeting this need through a collection of studies focusing on behavioral management. The abstracts presented here should be viewed simply as sources of ideas for further thinking and, as with previous issues, should not be considered definitive guides to action.

There is no question that a classroom climate must have a minimum of structure and order as necessary but not sufficient conditions for learning. An excessive need for corrective discipline wastes time and energy which the teacher should expend on the development of the pupils. Teachers are by necessity behavioral managers in maintaining a classroom climate conducive to learning. They are required to have within their grasp techniques that will "effect the controls necessary to the remediation of typical classroom behavior problems,"[1] when such problems are interfering with learning. Although the validity of the techniques presented in this volume has not yet been firmly established and the conclusions offered are to be considered tentative, educators should be aware of their promise. Some of the techniques for accomplishing behavior modification are reinforcement, modeling, and the establishment of inner controls. Within the contest of the abstracts, the gross differences between the techniques and the finer distinctions within each type of technique are treated, but the individual who consults other sources will realize that there is an extensive literature which covers the theories from which the research hypotheses have been derived.

In addition to recognizing the limited scope of this volume, the reader should be aware of the limitations of the studies themselves. Experimentation in the area of behavioral re-

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[1]Herbert O. Morice. "The School Psychologist as a Behavioral Consultant: A Project in Behavior Modification in a Public School Setting," ***Psychology in the School,*** V, No. 3 (1968), 253-261.

search in general, presents many procedural problems; and when the research focuses on a specific setting such as the classroom, problems of greater complexity arise. Ideally, experimentation should occur in the setting to which the research findings are to be applied. Unfortunately, practical research considerations usually prevent the undertaking of an experiment in the model setting, and the greater the separation between the model and actual research settings, the more limited becomes the scope of generalization.

Far from being exceptions, the investigators of the studies included in the "Abstracts" have faced some of the procedural problems and have had only limited success in counteracting such weaknesses. For example, most of the studies abstracted involve samples that are drawn primarily from populations of very young children. Although some of the subjects were upper elementary pupils, there is a distinct dearth of studies using secondary school subjects. Consequently, the reader should be wary of applying the findings reported here to behavioral problems faced in secondary schools without modification and careful planning. The need for additional research on behavioral management techniques is clear, particularly at the secondary level.

As noted earlier, research in the field of behavior modification is technically difficult and several interconnected experimental design problems are reflected in this volume. Because large groups of subjects are generally unavailable, researchers are forced to use small samples. The experimental safeguards of using control groups and randomization must usually be forgone – the lack of which threatens internal validity.

Another problem to be considered in reviewing these studies concerns the reliability of the techniques of observation. One finds it difficult to achieve consistency of observations from one occasion to another, made by one observer, or between observations on the same occasion made by more than one observer. Since observation techniques are central to most of the studies presented here, and rater reliability data are often not reported, the reader should take such omissions into account in evaluating results.

Caution is needed in applying reported results to the classroom situation not only because the conclusions are tentative, but also because some of the practices discussed are contrary to current beliefs about methods of classroom management. For example, a usual technique employed with a child who exhibits isolate behavior is to give him more attention. For a contrasting approach, one notes the method used by Allen and his associates in the study, "Effects of Social Reinforcement on Isolate Behavior of a Nursery School Child."

Finally, a study's inclusion in this volume should not be construed as endorsement by the Maryland State Department of Education of any reported practices.

The fifteen abstracts are grouped into two broad areas: those supporting experimentally that the teacher is a behavioral manager and those demonstrating techniques which the teacher could use as behavioral manager. The first area comprises three studies which conclude that the teacher can control students because the power he possesses makes him important to them. Twelve abstracts then cover different approaches to techniques of behavioral management: reinforcement procedures, modeling, the Premack principle, and establishing values or inner controls in students.

THE MOTIVATION IN SCHOOL OF YOUNG CHILDREN: SOME INTERVIEW DATA

Purpose: To determine the motivational factors that affect the in-school behavior of children

Review: One hundred and twenty-eight children from the kindergartens, first, second, and third grades of four different suburban schools were selected for interviewing on the basis of varying ability and behavior. The structured interviews consisted of 20 questions — 10 open-ended questions that required extensive reply by each subject and 10 additional questions about specific motivational procedures which could be answered by "yes," "sometimes," or "no." All interviews were conducted by the same female investigator.

The ten open-ended questions were:

1. **When you begin a new lesson at school, what kind of things does your teacher do to get you started?**
2. **What does your teacher do that makes it fun to learn new things?**
3. **What does your teacher do that makes you like school?**
4. **How do you feel when the teacher tells another child that he has the best paper or has done a good job?**
5. **How do you feel when your teacher tells another child that his paper isn't neat or isn't done correctly?**
6. **How do you feel when the teacher tells you that you have a very good paper?**
7. **How do you feel when the teacher tells you that yours isn't neat or done correctly?**
8. **What kind of things does the teacher tell other children about their work?**
9. **How does your teacher let you know if you are doing your work right?**
10. **What does your teacher do that frightens or scares you?**

Each subject was asked to respond by "yes," "sometimes," or "no," when asked if the teacher ever did the following:

1. **Give stars for good work.**
2. **Yell at children for misbehaving.**
3. **Write nice things on children's papers.**
4. **Put good papers up in the room.**
5. **Tell someone he's bad.**
6. **Send a child out of the room for misbehavior.**
7. **Tell someone how nice he looks.**
8. **Say she'll keep someone after school. Really keep someone after school.**
9. **Say she'll tell someone's mother he's bad.**
10. **Say she likes someone.**

Responses to the open-ended questions were placed in content categories and subcategories. For example, for responses to the first question, "When you begin a new lesson at school, what kind of things does your teacher do to get you started?", the categories formed were: (A) Response indicating a high pupil-teacher interaction and (B) Response

indicating low pupil-teacher interaction. The subcategories formed under category (A) were: (1) verbal assistance, explanation, (2) concrete demonstration, and (3) general assistance, unexplained. For category (B) only one subcategory was formed: simple direction, no mention of assistance. Since no significant difference in responses was discovered between sexes, their responses were combined in tabulating frequencies.

Replies to the first three open-ended questions revealed that "children are quite aware of and responsive to the teacher as a person." The children's responses indicated that even in the earliest grades of school they are aware that good classroom behavior is sustained by the activity and assistance of the teacher. In general, it was also found that children like school, especially if the teacher attempts to achieve "novelty" in her presentations. Remarks about the personality of the teacher were found to increase with advancing grade level.

Examination of the replies to questions 4 and 5 indicated "that children are apparently sensitive to the experiences of other children although in a somewhat curious way . . . ." Older children were more inclined to report neutral feelings (indifference) rather than positive feelings for both verbal reward and reprimand given to another child. However, when asked about praise or reproof given directly to the subject, all unanimously agreed on the intended effectiveness of either.

In response to question 9, it was found that the most salient technique used by the teacher to give the child information about his performance was vocal feedback. Nonvocal techniques, such as the use of stars and 100%'s on the tops of papers, are mentioned most frequently by first and second graders, but their use or effectiveness seems to decline by the third grade.

Mention of fear of the teacher was reported by some students in all the grades studied. The only specific category of fear-arousing stimuli reported with any frequency was the making of a loud noise or a commotion by the teacher.

Replies to the ten motivational procedure questions revealed that all of the specific techniques were reported with fairly substantial frequency. The major differences between grades were that "kindergarten teachers are unlikely to rely upon stars, yelling, threats of retention after school and perhaps threats to report bad behavior to parents," and that third grade teachers rarely use stars as indication of good work.

Conclusion: The investigators believed "that the children interviewed are quite sensitive to the teacher as a person and that they are affected greatly by what she does." They stated that "one of the most powerful incentives a teacher has to dispense or withhold may be her own attention." Individual responses indicated that the children viewed the teacher as the main and independent source of all things, good and bad, that happen to them at school.

Comment: The results of this study reinforce a belief held by many educators that primary school children perceive the teacher as a figure of great importance in the school setting. The teacher is viewed as the sole dispenser of success or failure and reward or punishment. Consequently, the classroom teacher is very likely the most valuable and effective source for controlling and modifying the behavior of primary school pupils.

Source: Sechrest, Lee B. "The Motivation in School of Young Children: Some Interview Data," ***Journal of Experimental Education,*** XXX, No. 4 (June 1962), 327-335.

THE SCHOOL PSYCHOLOGIST AS A BEHAVIORAL CONSULTANT:

A PROJECT IN BEHAVIOR MODIFICATION IN A PUBLIC SCHOOL SETTING

Purpose: (1) To determine if the counselor and school psychologist, working alone or cooperatively, can function as effective behavioral consultants to the teacher and (2) to evaluate the effectiveness of using operant techniques for managing individual problem behaviors

Review: Because of the insufficient number of school psychologists available to meet the demands for helping individual students, the investigator set out "to find a practical approach which would allow the psychologist to assume the role of a consultant" or resource person for the classroom teacher on matters of modifying the behavior of problem children. The investigator believed that a teacher "who is receptive to using operant techniques under the direction of a consultant – the school psychologist – would effect the controls necessary to the remediation of typical classroom behavior problems."

The operant approach to the management of behavior is based on the premise that many behaviors (called "operants") are controlled by stimulus consequences – that is, the response to be reinforced must occur prior to the presentation of the stimulus. The investigator called attention to the work of Bijou and Baer who in their book, ***Child Development: A Systematic and Empirical Theory,*** summarize the ways in which operants can produce consequences:

1. **They may produce certain stimulus events and as a result the operants increase in frequency. These stimuli are called positive reinforcers.**
2. **They may remove, avoid, or terminate certain other stimulus events and as a result the operants increase in frequency. These stimuli are called negative reinforcers.**
3. **They may produce or remove still other stimuli which fit neither of these categories, that is, which fail to strengthen a response whether the response produces the stimulus or removes it. These stimuli are called neutral stimuli.**

In a normal classroom situation, depending on the type of subsequent events, behavior can either be accelerated, decelerated, or remain unchanged. The tasks of the teacher as the behavioral manager, and the school psychologist as behavioral consultant, were to arrange "either or both of the antecedent and the subsequent rewarding events, in a systematic manner, to allow change to ensue."

This study was conducted in four elementary schools and involved the assistance of two elementary school counselors and a school psychologist as the behavioral consultants. These three persons met with the investigator for six orientation meetings to set a framework within which to operate and to provide a brief seminar on operant conditioning.

Twenty-eight children were selected from the referral systems of the school to participate. Thirteen of these children were referred for their disruptive classroom behavior, five for nonattentiveness, six for not meeting the work demands of the teacher, and four for the miscellaneous behaviors of stealing, defecation in the classroom, absenteeism-tardiness, and excessive phantasies.

A consultant contacted each teacher and secured permission to observe one of the target children for 15 to 30 minutes in the normal classroom setting. Following the observation, the consultant and the teacher met to discuss the specific behavior, termed target behavior, which they wished to modify. It was the responsibility of the consultant to define the target behavior in objective terms. However, the final decision whether to employ the operant conditioning techniques advised by the consultant remained entirely with the teacher, since she would be using the method in her classroom.

In order to obtain baseline data on target children whose behavior was nonacademic in nature (e.g., nonattentiveness, stealing), the teacher was instructed to spot check the behavior of the target child. To assure objectivity on the part of the teacher, she was allowed to observe and record the behavior of the child only when the clock was within one minute on either side of the quarter-hour mark. If target behavior was occurring, the teacher marked an "X" on the check sheet; if target behavior was not occurring, an "O" was recorded. Baseline data of target behaviors of an academic nature (e.g., not meeting work demands) were recorded in terms of number of assignments submitted each day and grades on assignments. On both academic and nonacademic recordings of target behavior, the teacher was asked to identify the antecedents and the consequences of the target behaviors.

The behavior modification phase of the study was then initiated. Antecedents employed included: (1) self-recording of work assignments; (2) change of seating assignments; (3) semi-isolation (placed behind a screen); and (4) reprogramming work. Administration of consequences varied systematically from attending to or ignoring certain behavior, to rewarding with tokens, candy, or a permissive activity.

One illustrative case involving nonacademic target behavior concerned a first-grade child who had been referred because of his lack of attention and cooperation, low academic performance, and constant attention-seeking behavior. The target behavior selected was "nonattentiveness," which was operationally defined as "turning around in seat, out of seat, handling object irrelevant to the work task, pushing or hitting others, and talking at inappropriate times." Baseline data revealed that this target-behavior occurred during 60 to 90 percent of the spot-check time. The modification phase of the study involved moving the child to a different seat, ignoring his nonattentiveness, and verbally praising him whenever he completed a work assignment. Recorded frequency of nonattentive behavior dropped from a mean of 79 percent during baseline to 33 percent during the modification phase. Follow-up checks three-and-one-half and four-and-one-half months later indicated that the change appeared to be persisting. The teacher also reported noticeable gains in the child's academic progress.

An illustrative case involving academic target behavior concerned a sixth grade boy with an IQ of 130 whose work output on written language assignments for three months was 40 percent, 64 percent, and 60 percent, respectively. The consultant advised both the boy's teacher and parents to place the child on a self-reward system, whereby he would record his own rate of assignment output and would be rewarded with money at home for successfully completing these assignments. The number of required assignments increased for two months and then gradually decreased once again. The teacher followed the consultant's advice that

the boy be seated at a desk adjacent to the teacher's and told that he could return to his former seat when the required assignments had been completed. If the assignment was satisfactorily completed before the end of the designated work period the boy was allowed to engage in an activity of his own choosing. The dispensing of money at home by the parents was discontinued, but the self-recording of work assignments by the child was retained. This method increased the work completion of the boy to 100 percent, and this rate continued until the end of the school term.

A look at the 13 cases referred for disruptive classroom behavior showed that seven of the eight target children placed in the modification program made substantial improvements in behavior. Two of the remaining five cases of disruptive behavior were dropped from the study since baseline data revealed no serious problem. In one case, spontaneous remission of behavior occurred. Another case was dropped after baseline because the contingencies recommended were rejected by the teacher and principal. The last of the 13 cases involved a serious behavior problem and was improved by sending the child home after an incidence of serious misconduct.

Four of the five cases of nonattentiveness were reported to have made good progress. However, formal data were available for only two subjects. One of the nonattentive cases was dropped from the study due to change of residence of the child.

Considerable progress was also reported for the six cases of not meeting the work demands of the teacher. Again, formal data were available for only three of these cases. Teachers' testimonials reported the progress of the remaining three.

The child referred for stealing was reported to have completely discontinued the behavior before the modification even began. The modification program was successful in decreasing defecation in the classroom and absenteeism-tardiness. For the child who engaged in excessive phantasy, a modification program of responding to nonphantasy behavior and ignoring phantasy behavior was employed. The teacher and others associated with the subject reported a dramatic reduction in the overt phantasy play.

Conclusion: The investigator concluded that "within the framework of consultant services, [as defined in this study], measurable assistance could be given to individual children." In addition, it was reported that with few exceptions, the classroom could function as the setting for modification of target behavior, and that the teacher could very adequately function as a behavioral manager. Attention should be called to the finding that the most commonly and successfully used consequence employed was "social reinforcement in the form of teacher approval and peer recognition."

Comment: This investigation suggests that the teacher ***can*** successfully manage the behavior of her pupils when the school psychologist or counselor is available to work directly with the teacher on a consultant basis as structured in this study. However, the finding that "social reinforcement in the form of teacher approval and peer recognition" was used with success

needs to be examined for universality. It is entirely possible that this technique would be valid only in settings where there is a high degree of overlap between acts which elicit approval of both the teacher and the child's peers. By contrast, in settings where a wide disparity exists between behaviors approved by peers and those approved by the teacher, alienation of the child from his peers may be a consequence of teacher approval.

Source: Morice, Herbert. "The School Psychologist As A Behavioral Consultant: A Project in Behavior Modification in a Public School Setting." ***Psychology in the School,*** V, No. 3 (1968), 253-261.

THE ROLE OF POWER IN THE ADOPTION OF SELF–REWARD PATTERNS

Purpose: To "investigate the effect of a model's power upon children's adoption of self-reward patterns which the model had displayed or imposed previously"

Review: Twenty-eight girls and twenty-eight boys, selected from a second and third grade of a Stanford elementary school, served as the subjects of this experiment. The 56 children were randomly divided into experimental and control groups with an equal number of boys and girls in each. All subjects worked with the same female investigator and the same male model.

The investigator took each subject individually to a three-room experimental trailer and showed him a miniature bowling alley consisting of a three-foot runway at the end of which were seven signal lights, each labeled with a score. In order to later endow the model with high prestige, the investigator told the child that the vice president and general manager of the toy company was at the school and that he personally would be showing the child the game. The model was then introduced to the child and began to explain the game, while the investigator left to watch the action through a one-way observation mirror.

In his demonstration of the bowling game, the model called the attention of the subject to two bowls of nuts and candies and commented, "These are just treats, and you can take one whenever you want." The model and subject alternated turns on the game for ten trials, each receiving a predetermined score pattern. Whenever a score of 20 was attained by the model he took a treat from the bowl, and remarked cheerfully that that was a good score. If the subject achieved a score of 20 the model encouraged him to take a treat also for his good performance. When the model or subject attained a score of five or ten, the model remarked, "No, no, no, that's not a very good score. I don't think that score deserves a treat." The purpose of this phase of the experiment was to establish for the subjects that self-reward should be positively correlated with performance level.

A discrepancy between modeled and imposed reward criteria was introduced for a score of 15. Whenever the model received this score he rewarded himself with a treat. However, when the subject attained a score of 15, the model remarked that that was not such a good score and that he did not want the subject to take a treat. This discrepancy was included to make the model's own self-reward pattern more lenient than the one he imposed upon the subject.

After these ten trials, the model introduced himself as the vice president and general manager of the toy company and remarked that he had several sample copies of the bowling game. The model then asked the child if he liked the game. The model said that the scores were not important and that the company only cared if the children enjoyed the game. These comments were made to all the subjects in order to minimize any relation the child might feel existed between his scores and the possibility of receiving a free game. For subjects in the control group, the model then excused himself, leaving the subject to use the game alone.

The experimental subjects were then given the "power" manipulation. (That is, in operative terms, "the power of person" A over B increases with A's ability to affect the

quality of outcomes attained by B). To increase the expectancy that the subject might get a free sample of the bowling game, the model remarked to each of the experimental subjects that he had several copies of the game to give away and that there was a good chance that the subject would be receiving one of the free games. The model then left the subject alone to play with the bowling game.

By these techniques the "prestige" of the model was equally established for both the experimental and control groups, with subjects in both groups aware that the model possessed resources (free bowling games). However, the groups differed with respect to the degree of 'power" attributed to the model. In particular, subjects in the experimental group were made aware of the model's "potential rewardingness" by being told of the possibility of his giving them a free gift, whereas the subjects in the control group were not.

After observing each subject playing ten additional trials alone, and recording each subject's self-rewarding system (Phase I), the investigator returned and casually inquired how the subject was doing. For subjects in the potential reward (experimental) group, the investigator negated the possibility of a potential reward by adding that she had just discovered that a sample game would definitely not be given to the child. She then suggested that the subject continue playing with the game and she left. The self-reward system of the subject was again observed and recorded for ten trials (Phase II).

Data for girls and boys were combined on all analyses since no sex difference was discovered. Using one-tailed t-tests, an inspection of the self-reward data recorded after the introduction of the potential reward (Phase I) revealed that:

1. Children in the experimental group (potential reward group) were more stringent in their overall self-reward than those in the control group and rewarded themselves less frequently for their performance (significant to the .05 level of confidence).

2. More adherence to the rule "that self-reward should be directly correlated with the magnitude of the bowling scores," was demonstrated by children in the experimental group (significant to the .05 level of confidence).

3. The mean self-reward frequency on prohibited scores of 15 or less was significantly less for subjects in the experimental group than for those in the control group (significant to the .025 level of confidence).

4. Self-reward for scores of 15 was less for the experimental group (significant at the .025 level of confidence).

5. Experimental and control subjects did not differ in self-reward for nonprohibited scores, that is, scores of 20 (no significance figures reported).

Results of comparisons for the self-reward data recorded following the negation of the model's potential rewardingness (Phase II) revealed no significant difference between experimental and control subjects. However, the data revealed that subjects in the experimental

group tended to indulge in less self-reward than subjects in the control group on explicitly prohibited scores of 15, even after the model's power was negated.

Conclusion: Since subjects who had been exposed to a potentially rewarding model showed greater stringency when alone than did subjects in the control group not exposed to this potential reward, the investigators concluded that "the maintainance of particular self-reward patterns may be affected by the attributes of the model from whom they were initially learned." The significant difference found between groups for the adherence to a general rule that self-reward should be correlated with high performance, suggested that "acceptance of a general yardstick for evaluating and rewarding one's own behavior is affected by the power or potential rewardingness of the agent who communicated the evaluative principle." Also, since a significant difference between groups was revealed for self-reward on prohibited scores the investigators suggested that "an agent's potential rewardingness facilitates the maintainance of the social prohibitions he prescribed."

Because the model had rewarded himself on scores of 15 and prohibited the subject from similarly receiving a treat when he attained this score, the investigators considered this measure of self-reward as the clearest index of "resistance to disobedience" or "self-control." They felt that the injunction given by the model "had the character of a command rather than of a normative practice." The significant outcome indicated to the investigators "that self-control is more likely to be induced by powerful than by nonpowerful agents." It was also concluded that the models had not generally inhibited the self-reward system of the subjects, since no significant difference was revealed when groups were compared on self-reward for acceptable scores of 20.

Since no significant difference was found between groups after the potential reward had been negated, the investigators suggested the need for further research. A subsequent investigation should include another experimental group for which power is introduced and not negated in order to determine the actual effects of loss of power by a social agent on the maintenance of the restrictions he imposed.

The investigators summarized their results by stating that "in a discrepant situation, an agent's potential rewardingness increases his influence over others in the direction of greater obedience, and generates more stringent adherence to his imposed reward criteria and standards and greater inhibition in self-reward for poor performances." It was also concluded that "a less powerful agent may be more likely to generate disobedience."

Comment: The conclusion that the potential rewardingness of an individual increases the probability of obedience seems to support the observation that substituting teachers often have a greater problem controlling the behavior of classes than do the regular teachers. Substitutes have little "potential rewardingness" or "power" since they do not give grades or seldom even correct the work the students are doing the day their teacher is absent. Substitute teachers are the "less powerful" agents who are "likely to generate disobedience."

In order to maintain satisfactory discipline while a regular teacher is away, the potential rewardingness of the substitute should be increased. The regular teacher, might accomplish this by telling her students early in the school term what conduct she expects of them

under the supervision of a substitute teacher. Possibly the regular teacher might allow the substitute to grade the students, wither on their written or oral activity for the day, make the class aware of this system, and also make them aware that the grades will be used as a part of their term grade. By this or some other method, the substituting teacher is given a more responsible part and greater "power," thereby increasing the obedience of the students.

Source: Mischel, Walter, and Liebert, Robert M. "The Role of Power in the Adoption of Self Reward Patterns," ***Child Development,*** XXXVIII (September 1967), 673-683.

THE CONTINGENT USE OF TEACHER ATTENTION AND PRAISE IN REDUCING CLASSROOM BEHAVIOR PROBLEMS

Purpose: To "demonstrate how the selective use of teacher attention and praise can be effectively applied in managing behavior problems in elementary classrooms"

Review: This study was conducted in an Illinois elementary school whose student body was 95 percent Negro. Seven teachers volunteered to participate in a seminar-workshop which discussed the application of behavioral principles in the classroom. (The results of only five teachers were presented in this report.)

The selection of subjects began with observation of the volunteer teachers' classes. After the observations, possible problem children were discussed with the teachers. It was agreed that an appropriate definition for a behavior problem child was one "who interfered with classroom learning (time or task), and/or . . . violated the rules for permissible behavior established by the teacher, and/or . . . reflected particular behaviors a teacher wanted to change (e.g. thumbsucking)."

Two children were selected from each class as the "target children." Below is a condensed description of the behavior of each child prior to the introduction of the experimental procedures.

Teacher A

Albert – seven years and eight months old; average intelligence; in grade two but worked on grade one material; talked, made noises, got out of his seat, responded negatively to suggestions, stuttered, and was convinced he could not read.

Alice – seven years and eight months old; scored 90 on ***Stanford-Binet;*** did low first grade work; sulked, sucked her thumb, sat inappropriately in her chair, and developed headaches after being scolded.

Teacher B

Betty – nine years and seven months old; average intelligence; did middle third grade work; pestered other children, blurted out, sucked her thumb, made noises, and hit other children.

Boyd – nine years and seven months old; average intelligence; did second and third grade work; got out of his seat, talked out of turn, made noises and giggled.

Teacher C

Carole – seven years and five months old; scored from 78 to 106 on various intelligence tests; did mid-first grade work; talked out of turn, got out of her seat, bossed other children, hit other children, lied, cheated, stole, and smoked.

Charley – ten years old; scored 73 on IQ test; did mid-first grade work; picked on girls, bullied girls, got loud and angry if reprimanded, sulked, withdrew, and ignored teacher's requests.

Teacher D

Don – ten years and four months old; average intelligence; did second and third grade work; moved around the room, talked to other children.

Dan – ten years and six months old; scored 85 on IQ test; had a two-year reading deficit and a one-year arithmetic deficit; moved around the room, talked to other children, made noises.

Teacher E

Edward – six years and eight months old; scored 95 on ***Stanford-Binet;*** poor work habits, poor attention, did not comprehend what he read, wandered around the room, turned around in his seat, talked out of turn, and made odd noises.

Elmer – six years and ten months old; scored 97 on IQ test; had temper tantrums, talked out of turn, made noises, turned around in his seat.

In order to obtain a baseline record of the classroom behavior of each of these target children, observers (trained, paid undergraduates in psychology) watched and rated each child for 20 minutes a day, four days a week, for five weeks. The general coding categories used to rate each subject were gross motor behaviors; disruptive noise with objects; disturbing others directly and aggression; orienting responses; blurting out; commenting and vocal noise; and talking. Special categories for individual children included improper position (Carole and Alice); thumbsucking (Alice and Betty); bossing (Carole); and ignoring (Charley). Each target child was also rated on relevant behavior, that is, the time each spent on an appropriate school task, such as answering questions, listening, and raising his hand.

Following the baseline period teachers were given general and special rules to follow for the nine-week experimental phase of the study. The general rules for the teachers were: (1) Make explicit rules as to what is expected of children for each period (2) ignore (do not attend to) behaviors which interfere with learning or teaching unless a child is being hurt by another, and then use a punishment which seems appropriate, preferably withdrawal of some positive reinforcement; and (3) give praise and attention to behaviors which appear to facilitate learning by telling the child what he is being praised for, reinforcing behaviors incompatible with those you wish to decrease, and in general, giving praise for achievement, pro-social behavior, and following group rules.

Special rules, specific with respect to each teacher's target children, were also given to Teachers A, B, C, and D. For example, Teacher A was instructed to praise Alice for sitting

straight in her chair, for using her hands for activities other than thumbsucking, and for paying attention to directions given by the teacher. Teacher E was asked to follow only the general instructions and told to withhold any special attention from her two target children, since she had problems with general classroom management.

A sample of the behavior of the teachers was observed and rated at the beginning of the experimental phase for four teachers and for a week prior to the experimental phase for teacher E in order to insure that the experimental program was being followed. Teachers were rated on positive contact, verbal praise, recognition in academic sense, facial attention, attention to undesirable behavior, turning off lights to achieve control, withdrawal of positive reinforcement, and physical restraint.

For the ten children in the five classes, the average deviant behavior during the five-week baseline period was 62.13 percent. During the experimental period, the average deviant behavior dropped to 29.19 percent. A t-test calculated for the difference between the correlated means yielded results significant at the .001 level of confidence. Thus, the investigators thought that the method of ignoring deviant behavior and reinforcing incompatible appropriate behavior was successful in modifying deviant classroom behavior.

Each of the subjects showed less deviant behavior during the experimental phase of the study. However, differential teacher attention and earned reinforcers (candy, make-up kit) were not completely satisfactory in controlling Carole's behavior (Teacher C). The investigators suggested placing Carole in "a classroom where the structure would require her to depend on the teacher for praise and attention and where peer attention to her deviant behavior could be controlled." A successful change in the classroom behavior was reported for Danny (Teacher D). Although a small improvement was shown in the first two weeks of the experimental phase, a dramatic improvement in behavior was revealed after Danny began being tutored in reading. The investigators stated that "unless the child is capable of following the assigned activity, social reinforcement for 'on task' behavior is not enough." At the end of the study, Teacher E, who because of general classroom control problems, had been given only the general rules to follow with her classes, reported that 12 of the 23 children in her class had improved in behavior.

Conclusion: The investigators saw the following implications: (1) Different kinds of teachers can learn to apply behavioral principles effectively to modify the behavior of problem children; (2) rules alone are not sufficient and simply ignoring deviant behavior actually increases such behavior; (3) a combination of ignoring deviant behavior and reinforcing an incompatible behavior seems critical to modify behavior successfully; and (4) the technique of praising a child who shows an incompatible inappropriate behavior when another child is misbehaving, seems especially effective.

Comment: The subject, Danny, whose deviant behavior was significantly decreased after his exposure to remedial reading, calls attention to a commonly enunciated principle of education. The first objective of teachers and also of curriculum coordinators and administrators should be the presentation of school work appropriate to the level of the child and the placement of each child in a section that does work on his level. As the investigators stated,

any attempt by the teacher to control deviant behavior cannot be completely successful if the child is incapable of performing the assigned work. This idea of giving the child work that he can successfully perform seems to be an important principle in controlling classroom behavior. The use of social reinforcement, as described in this study, can then be used satisfactorily with deviant children.

Source: Becker, Wesley C.; Madsem, Charles H. Jr.; Arnold, Carole R.; and Thomas, Don R. "The Contingent Use of Teacher Attention and Praise in Reducing Classroom Behavior Problems," ***The Journal of Special Education,*** I, No. 3 (1967), 287-307.

EFFECTS OF SOCIAL REINFORCEMENT ON ISOLATE BEHAVIOR OF A NURSERY SCHOOL CHILD

Purpose: To increase and maintain through the use of positive and systematic reinforcement — teacher attention — the peer interaction of a child who showed persistent isolate behavior

Review: The subject of this study, Ann, a four-year-old child, was enrolled in a preschool class of eight boys and eight girls, homogeneously grouped for age, intelligence, and family background. During the first six weeks of school, Ann's behavior involved isolating herself from the other children and engaging in varied activities, such as speaking in breathy tones or retiring to a make-believe bed, in order to gain the attention of the teacher. At the end of this first six-week period, a plan was devised to give Ann maximum teacher attention when she interacted with other children, and minimum teacher attention when she exhibited isolate behavior or interaction with the teacher alone.

Two objective observers were asked to assess and record Ann's proximity and interaction with adults and children. Proximity was defined as "physical closeness to adult or child (within three feet)." Interaction was thought of as "conversing, smiling or looking toward, touching, and/or helping an adult or child."

After five days of recording baseline data of the amount of time Ann spent with children, adults, and alone, reinforcement procedures were initiated. As soon as Ann interacted with another child, a teacher gave her direct individual attention. If Ann played alone, she was given no attention; and minimum attention was given her if she sought the attention of a teacher alone. However, analysis of data showed that this reinforcement method guided Ann toward interaction with the adult and away from interaction with the children as soon as the direct individual attention was given to her.

Then the method was changed to having the teacher's comments refer to Ann's participation in the group play. As soon as Ann seemed to drift from the group into isolation the teacher quickly withdrew the attention and became preoccupied with another group of children. This method, used for six days, seemed to cause Ann to participate more often and for longer periods with her peers. Interaction with children rose to 60 percent of Ann's time.

During the next five days procedures were reversed in order to validate that the application of reinforcement had caused the change in Ann's behavior. Ann was ignored by adults when she played with her peers, and given individual attention when she isolated herself or when she made contact solely with an adult. Ann's previous patterns of isolation and of interaction solely with a teacher reappeared. Only 20 percent of her time was spent in interaction with children, and 40 percent was spent in interaction with adults.

Once again, the contingencies of reinforcing Ann when she participated in group play were put into effect for the next nine days. Ann began to spend longer periods in continuous interaction with her peers and the special reinforcement conditions were gradually made more intermittent until she was receiving adult attention normal for the entire group.

Conclusion: The investigators commented that systematic application of reinforcement principles "offer a clear, objective guide for precisely discriminating occasions for giving and for withholding adult attention." It was implied that the traditional nursery school technique of responding warmly to a child who singled out the teacher – thereby giving special attention to isolates – may not be the most effective means of encouraging peer interaction.

Comment: Although the study involved only one subject, the results are nonetheless noteworthy in suggesting that preschool teachers should be selective in their manner of applying reinforcement. Some children may be encouraged to participate in group activities by individual attention, while this attention for others may only encourage further isolation and less peer interaction.

It is the responsibility of the teacher to determine if the traditional nursery school procedure of giving individual attention to a nonparticipating child is helping to overcome some problem which causes the child to isolate himself from the group. If this attention only tends to encourage further aloneness and to discourage peer interaction, the reinforcement should be varied so that the child becomes aware that group interaction is worthy of teacher attention and isolation is not.

Source: Allen, Eileen K.; Hart, Betty; Buell, Joan S.; Harriss, Florence R.; and Wolf, Montrose M. "Effects of Social Reinforcement on Isolate Behavior of a Nursery School Child," ***Child Development,*** XXXV (1964), 511-518.

THE ALTERATION OF BEHAVIOR IN A SPECIAL CLASSROOM SITUATION

Purpose: To eliminate unproductive classroom behavior in two emotionally disturbed boys by removing social consequences of the behavior

Review: Two 11-year-old boys, inpatients at a residential treatment center, attended a one-hour English class conducted each day by the investigator. Neither boy was afflicted by an organic disorder and both were of normal intelligence.

Whenever called on to spell a word, Subject 1 would pause, make a face, and then utter letters unrelated to the word. The investigator would immediately repeat the word very distinctly and give the boy help and encouragement in arriving at the correct spelling. This method proved to be ineffective in improving the spelling ability of Subject 1, since after 10 or 15 class periods, it took increasingly more time to get the boy to respond correctly. In addition to his poor performance in spelling, Subject 1 was prone to wrinkle sheets of paper, throw them away, and laugh when his antics were noticed by the investigator or another student.

The approach used by the investigator to solve the problem was altered after several weeks of class. The subject was given a written spelling test for which he handed in "words" consisting of muddled combinations of letters. The investigator immediately asked the subject to go to the board and dictated a word to him. The investigator gave no response as the subject misspelled the word ten or more times. She sat at her desk and apparently preoccupied herself with reading or writing. After approximately ten minutes, the boy spelled the word correctly, and the investigator looked up from her work, smiled, and said, "Good, now we can go on." This pattern was repeated for all ten words. The investigator gave no reinforcement for incorrect spellings and responded with both verbal and nonverbal reinforcement when the boy successfully spelled a word. With each word the number of the boy's inappropriate responses decreased. After the successful completion of the ten words, the investigator asked the subject to help her color Easter baskets. This method of ignoring unacceptable behavior, and reinforcing desired classroom responses by smiling and physical closeness was thereafter employed. The result of this method was a marked improvement in the boy's academic progress and classroom conduct.

Subject 2 was prone to temper tantrums in the hall before the beginning of class. The staff members usually gathered around to watch and comment on the boy's behavior. During one of these occasions, the investigator asked an attendent to put the boy in the classroom and to leave, closing the door as he left. The boy sat at his desk, crying and kicking. The investigator went to her desk and after several minutes of ignoring the boy, declared that she would begin working with him as soon as he was ready. After four or five minutes of continued but gradually subdued crying and screaming, the boy raised his head and told the investigator he was ready to begin. The investigator then looked at him, smiled, went over to him, and said, "Good, now let's get to work." The subject worked well for the remainder of the class period. During other classes the investigator used intermittent reinforcement with the boy. In a large class situation, for example, if the boy listened atten-

tively, the investigator asked him a question she knew he could answer or she smiled at him. Whenever he emitted irrelevant verbal behavior, attention was withheld. Improvement was also noted for this subject in academic achievement and in classroom behavior.

Conclusion: Through these two case studies, the investigator demonstrated the successful use of shaping social and scholastic adjustment of young boys by appropriate and intermittent social reinforcement.

Comment: This study was conducted with two emotionally disturbed boys, but it does have some relevance for the normal classroom situation. Often teachers encounter a student who exhibits inadequate social adjustment which might affect his academic performance. The use of individual or special attention from the teacher might not always be the satisfactory method of readjusting the student. Teachers should be aware that continuous reinforcement of this type might only encourage the undesirable patterns. For a student who uses disruptive classroom behavior as a means of getting the teacher's or other students' attention, reinforcement should be held for situations where his actions are appropriate to a learning situation.

Source: Zimmerman, Elaine H., and Zimmerman, J. "The Alteration of Behavior in a Special Classroom Situation." ***Journal of the Experimental Analysis of Behavior,*** V, No. 1 (January 1962), 59-60.

INCREASING TASK–ORIENTED BEHAVIOR:

AN EXPERIMENTAL EVALUATION OF TRAINING TEACHERS IN REINFORCEMENT TECHNIQUES

Purpose: To undertake an experimental evaluation of "reinforcement procedures designed to increase the task-oriented behavior of elementary school pupils"

Review: The investigators defined "task-oriented behavior" as "behavior that leads to completing assignments . . . [and that] . . . includes all those activities the child performs to finish his work." The investigators wished to find a method of increasing task-oriented behavior because a child's lack of attentiveness to school work can be detrimental to the individual child, to the other pupils in the class, and to the teacher. The inattentive child inhibits his social and intellectual potentials. He may develop the reputation of being a "troublemaker" with a consequent breakdown in the relationship between the teacher and himself. In addition, the inattentive child may fall behind in academic achievement. Often the inappropriate actions of one child can cause an entire class to develop poor work habits. And the teacher, herself, is affected by the inattentive child. According to the investigators, the greatest hazard to the teacher is the phenomenon of "reversed shaping" – that is, "the pupil's ready obedience to her harsh commands may lead the teacher to employ increasingly more punitive methods." For example, the teacher may be forced to increase gradually the intensity of her voice in order to maintain the effectiveness of commands.

The investigators sought to relieve the problems of the teacher and other students in the class by trying to increase the task-oriented behavior of the inattentive child through the application of systematic reinforcement. It was assumed that a teacher who frequently reminds an inattentive child to get back to work, unintentionally reinforces his inattentive behavior. Meanwhile, the other children in the class suffer from lack of teacher attention. The reinforcement procedures employed in this study reversed these contingencies. Teachers were encouraged to withhold attention from the inattentive child and to reward him for attentive behavior as soon as it occurred.

The following hypotheses were examined:

1. **Teachers trained to use certain reinforcement methods would show a greater application of those techniques than teachers not given the special training.**
2. **Pupils whose teachers were trained in the recommended reinforcement techniques would show:**
   a. **More task-oriented behaviors**
   b. **More independent task-oriented behaviors**
   c. **More favorable behavior ratings by their teachers.**

Fourteen second-grade teachers identified four children in each of their classes who could not remain attentive and two were selected from each group of four to be subjects of the investigation. Although there were two participating subjects from each class, the teachers were informed that only one child would be involved. These children were called the "identified subjects." The second child in each of the classes was observed as the first,

but the teachers were unaware of this. These children were called the "unidentified subjects."

The 14 teachers were randomly assigned to experimental and control groups but were unaware of the group to which they belonged. Teachers in the experimental group met with the investigator who informed them of the names of the children selected as subjects (identified subjects), reviewed for them the purpose of the study, and explained the methods to be used. A short training program consisting of films, and a question-and-answer session was designed to prepare the experimental teachers to apply systematic reinforcement. After this initial meeting, each teacher met with the investigator individually and again in a group meeting. The teachers were cautioned to confine their use of operant techniques to the identified subject. They were also told to make every effort to ignore observers who entered the classroom.

Control teachers also met with the investigator, learned the names of identified subjects, and participated in a general discussion of problems concerning the inattentive child. Prior to the discussion, each control teacher had been asked to complete a ***Survey of Teaching Methods*** questionnaire. The responses consisted of a listing of methods she had found to be effective in handling attention problems. After the discussion on methods, the investigator suggested that since each teacher had discovered a method of managing attention problems compatible with her own personality, she should pursue the same techniques with the identified subject during the six-week experiment. Control teachers were also informed that observers would be visiting their classes to evaluate the effects of their techniques. There were also individual conferences with the investigator during the six-week period.

At the initial and final meetings with the investigator, both experimental and control group teachers were asked to complete ***The Problem Behavior Checklist*** for the four children originally selected because of their inattentive behavior. The checklist was incorporated into the study to give teachers a better idea of which behavior should be considered as inattentive and to establish a standard baseline against which teachers could report judgments about the behavior of their pupils. These ratings were later used to test the hypothesis concerning whether experimental subjects receive more favorable behavior ratings than do control subjects.

Observers were volunteer women from the Parent-Teacher Association. Their training program involved viewing films on various behaviors, discussing these behaviors, and receiving instruction in the rating procedures. The observers were then told to rate both identified and unidentified target children as exhibiting one of the following behaviors:

(1) Working (high-task orientation)
(2) Preparing to work (task-orientation)
(3) Being idle (neutral behavior)
(4) Disrupting a few other children (non-task orientation)
(5) Disrupting the work of many other children (low-task orientation)

Concomitantly the observers rated the teacher's reaction to these behaviors as one of the following:

(1) Rewarding the individual child
(2) Rewarding the group, including the subject
(3) Instructing the subject
(4) Instructing the group, including the subject
(5) Disregarding the pupil's behavior
(6) Reminding the subject to resume work
(7) Warning the subject against further misconduct
(8) Punishing the group in which the subject is a member
(9) Punishing the subject

Each of the observers was individually assigned to classrooms where she observed the behaviors of the teacher and child at three-week intervals. Each observer made the same number of observations in experimental and control classrooms.

In order to test the first hypothesis, t-tests were used to compare experimental and control teachers in the frequency with which reinforcement methods were used for both the identified and unidentified subjects. No significant difference was revealed on this measure. However, for identified subjects, Fisher's exact method resulted in differences significant to the .05 level of confidence for comparisons between experimental and control group teachers. Tests for the second hypothesis showed that experimental subjects (a) performed no greater frequency of task-oriented behavior than control subjects, (b) performed a greater frequency of individual task-oriented behaviors than control subjects, but the difference was not significant, and (c) received no more favorable behavior ratings from their teachers than did control subjects.

Conclusion: Analyses of the data and discussions with the experimental teachers revealed that although the teachers approved the use of the reinforcement techniques, they "found themselves unable to apply them consistently." It would seem that previous learning and experiences prevent the teachers from completely ignoring pupil inattention over a period of time. The investigators recommended extensive inservice training for teachers in the use of the reinforcement model if they are to be able to apply it consistently.

Comment: A teacher interested in adopting the reinforcement technique for behavior modification should be aware of the necessity for caution pointed out in this study, namely that the reinforcement must be applied consistently. Unacceptable behavior should always be ignored or unrewarded, and acceptable behavior should always be rewarded as soon as it occurs. However, as the investigators have stated, applying this method can be a frustrating experience. It is difficult to ignore behavior that teachers have always reprimanded in the past. Also, some unacceptable behavior, such as talking out loud or walking around the room, cannot be totally ignored since it interferes with normal classroom procedures and instruction. The use of systematic reinforcement, then, represents only one useful approach to modifying unacceptable classroom behavior and is not the ultimate panacea.

Source: Krumboltz, John D., and Goodwin, Dwight L. "Increasing Task-Oriented Behavior: An Experimental Evaluation of Training Teachers in Reinforcement Techniques," ***ERIC,*** ED 010017, 1966. Unpublished Ms., School of Education, Stanford University, Stanford, California, 1966. (Final report of research conducted under Contract OE 5-85-095 with funds provided under Section 4 (c) of the Vocational Education Act of 1963 through the U.S. Office of Education, Department of Health, Education and Welfare.)

INFLUENCE OF SOCIAL REINFORCEMENT AND THE BEHAVIOR OF MODELS IN SHAPING CHILDREN'S MORAL JUDGMENTS

Purpose: (1) To demonstrate that social reinforcement and modeling procedures can modify children's moral orientation; and (2) to determine whether moral judgment responses are age-specific as suggested by Piaget

Review: By attempting to manipulate the moral judgment of children, the experimenters tested Piaget's premise that there exist two clear-cut stages of moral judgment demarcated at approximately seven years of age. The two stages formulated by Piaget were: (1) objective responsibility—children disregard the intention of deviant behavior and make their moral judgments in regard to the amount of material damage resulting from the act, and (2) subjective responsibility—children tend to emphasize the intention of the deviant behavior when making moral judgments, and to deemphasize the material damage encountered.

Seventy-eight boys and eighty-seven girls, ranging in age from five to eleven years, were selected from a Jewish parochial school and a public elementary school. The procedure began with a base operant test during which each subject was presented with 12 pairs of stories, each pair describing a well-intentioned act which resulted in material damage, and a selfishly intentioned act producing only minor damage. The subject was to decide which child was "naughtier" in each pair of stories.

Forty-eight children were found to exhibit predominantly subjective moral orientation, and thirty-six favored objective moral orientation. These 34 subjects were randomly assigned to one of three experimental conditions. Group 1 subjects were presented with 12 sets of stories. Each subject first observed an adult model whose expressed judgment was in direct opposition to his moral orientation. The model, after responding, was socially reinforced by the investigator with "Very Good," "That's Fine." The subject was then allowed to respond to the story and was only socially reinforced when his response was the same as the model's (that is, opposite to his own moral orientation). Group 2 subjects also observed models whose moral judgment responses were counter to the subject's orientation, but no social reinforcement was given for matching the model's response. Group 3 subjects were not exposed to the reaction of models, but were socially reinforced whenever they expressed judgments in opposition to their moral orientation. It was hypothesized that the Group 1 experimental treatment would be most effective and the Group 3 experimental treatment would be least effective, in modifying children's moral judgments.

The posttest was conducted immediately following the experimental treatment conditions. Each subject was taken individually to another room where the investigator read 12 additional pairs of stories to the child and recorded the verbal responses without comment. Items included in the operant test were repeated in the posttest to determine if the experimental condition had successfully altered the children's evaluative response, thereby casting doubt on Piaget's age-specific theory of morality.

Analysis of the data to test judgmental responses as a function of age showed that with age increase, subjective morality increased. The normative data revealed that subjectivity is

positively associated with age ($F = 4.84$, $p < .01$). The tests however, failed to show demarcated stages of moral development. Rather than existing as sequential stages in moral judgment development, objective and subjective judgment exist together. Results of this experiment showed that most young children could use subjective judgment and most older children could exercise varying degrees of objective judgment.

Analysis of variance and t-tests were performed to investigate the influence of reinforcement and modeling cues. Results indicated that subjective oriented subjects in Group 1 (modeling cues and social reinforcement) and Group 2 (modeling cues – no reinforcement) modified their judgments toward objectivity and retained this modification during the post-test. Group 3 subjective oriented subjects (operant conditioning) showed a slight, but statistically insignificant, increase toward objective judgment responses.

Computations of data on objectively oriented subjects who were treated subjectively revealed no significant difference between the effects of the three experimental conditions. The principal contributor to the main treatment effect, however, seemed to be the modeling condition, which produced significant and stable increases in subjectively oriented responses. No significant increase was indicated for those subjects in operant conditioning.

Conclusion: The investigators questioned the validity of Piaget's demarcated and sequential stage theory of morality because of (1) the absence of demarcated stages in moral development, and (2) the finding that children's moral judgments can be successfully modified through modeling techniques. Also, the investigators found that successful use of modeling cues possibly indicates their usefulness in modifying generalized patterns of social behavior.

Comment: The classroom teacher might expect some success in applying modeling cues to shape the deviant behavior of a student. One possible method of affecting the classroom behavior of a deviant student would be to reinforce the acceptable behavior of the model in a pronounced way, and to reinforce deviant students only when their behavior imitates the model's.

Source: Bandura, Albert, and McDonald, Frederick J. "Influence of Social Reinforcement and the Behavior of Models in Shaping Children's Moral Judgments," ***Journal of Abnormal and Social Psychology,*** LXVII (1963), 274-281.

EFFECTS OF TEACHER'S REINFORCEMENT STYLE UPON CHILDREN'S IMITATION AND PREFERENCE

Purpose: To investigate "the effects of variations in the reinforcement style of a teacher upon imitative behavior and [upon the] preference of children differing in personality traits and social background"

Review: Thirty-three experimental subjects, nine- and ten-year-old boys, attending a six-week remedial educational program, were divided into two groups, Advantaged and Disadvantaged. Twenty-one boys from middle-class backgrounds comprised the Advantaged Group, while the remaining twelve boys whose backgrounds were lower-class made up the Disadvantaged Group. The groups were equated for IQ, age, and reading disability. Comparable control groups consisting of six advantaged and six disadvantaged boys were also formed.

Two four-minute films, each showing a different teacher using 15 pictures of African animals and a map of Africa to teach four children a lesson, were shown in varying succession to the experimental subjects. The children's voices in the film could be heard but they appeared only as silhouettes on the screen so that the teacher would be the center of attention for the viewers. The films were identical except for the type of reinforcement given and the gestures used by the two different teachers.

The Positive Reinforcing Teacher made rewarding verbal comments to all correct responses from the four children and made no comment when an incorrect answer was given, while the Negative Reinforcing Teacher gave no response to correct answers but gave a verbally negative response when the children answered incorrectly. Gestures by the Positive Teacher included encouraging the children to "think" while pointing to her forehead before she asked a question, and frequently clasping her hands. The Negative Teacher encouraged the children to "listen" while cupping her ear and frequently folding her arms.

After viewing both films, each subject was told that he would be given an opportunity to "play" school using the same pictures and map that the teachers in the films had used. Two life-size dolls were to serve as each subject's "pupils." For seven minutes the subject was allowed to teach his lesson, while the investigator observed his actions from an adjacent room through a one-way mirror. A microphone allowed the investigator to respond to the subject's questions as though the "pupils" were answering. During the next nine minutes the subject was told to hold up each picture of the African animals and to allow the "pupils" to identify them. The investigator allowed the "pupils" to respond correctly 60 percent of the time. Another observer during the 15 minutes that the subject taught recorded his verbal remarks, reactions to the "pupils'" answers, and his gestures.

Subjects in the control group did not view the two films. They were, however, given the same opportunity to teach the lesson on Africa as were the experimental subjects.

The investigator posed three hypotheses: (1) there is significantly greater imitation of a positive than of a negative teacher; (2) children who imitate a negative teacher are significantly more aggressive than children who imitate a positive teacher; and (3) children high in dependency manifest significantly greater imitation than children low in dependency.

The scoring of imitative behavior was restricted to those distinctive responses and gestures associated with the teachers in the films. The actions of each subject imitative of the positive and negative teachers were totaled separately; then depending upon which imitative score was greater, each subject was classified as either a Positive or Negative Imitator.

In order to classify each subject into a Preference Group, each was asked which teacher he liked who he thought was a better teacher, who he thought was friendlier, and who he preferred to have as a teacher. For each Negative Teacher Preference one point was given. Subjects with more than two points were classified in the Negative Preference Group; subjects with fewer than two points were classified in the Positive Preference Group.

Teachers of each subject were asked to rate these students on a nine-item aggression scale which dealt with overt physical and verbal behavior, and on a six-item dependency scale which included need for assurance, self-reliance, help and attention, initiative, and persistence.

The investigator decided that in order to be classified as an imitator, a subject had to make at least two responses imitative of the teacher models. Using this criterion, results indicated that of the 33 experimental subjects, 19 were imitators. Only two of the twelve control subjects were classified as imitators. However, for the total sample, imitation was greater for the Positive Teacher. A mean score of 2.2 imitative responses was found for the Positive Teacher, while 0.9 was the comparable mean for the Negative Teacher. This difference was significant at the .01 level of confidence. Greater imitation of the Positive Teacher holds only for subjects in the Advantaged Group. Little imitation of either teacher was discovered for subjects in the Disadvantaged Group.

The second hypothesis concerning the relationship between the Negative Teacher and aggression was not tested because there was little imitation of the Negative Teacher. However, since it was found that the most aggressive children did not imitate the Negative Teacher, and a wide variation was discovered in the aggression ratings of the Positive Imitators, the investigator doubted the validity of the hypothesis.

The investigator accepted the third hypothesis that high dependency resulted in greater imitation, since results revealed that imitators within the Advantaged Group were significantly more dependent than non-imitators. No significant difference was found in the Disadvantaged Group.

Analysis of the children's preference of teachers as related to the imitation of the particular reinforcement style of that teacher, revealed that "preference for a teacher was unrelated to the degree of imitation of that teacher." No significant difference was found for either the subjects in the Advantaged or Disadvantaged Groups, although the Disadvantaged Group tended to prefer the Negative teacher.

Conclusion: Since most of the imitative behavior was manifested by the advantaged subjects in response to the rewarding teacher instead of the criticizing teacher, the investigator saw this as evidence "of the greater secondary reinforcing properties" of positive teachers for children from middle-class social backgrounds. Further research was suggested to determine if weak imitative tendencies generally occurred in disadvantaged children, or if they

were only specific to the imitation of middle-class teacher models. The investigator concluded that "if a teacher's values and standards are reflected in behaviors incidental to her formal educational objectives, then group and individual differences in imitative tendencies are significant factors determining whether these values and standards are acquired by the child."

Comment: In addition to supporting the affirmation that a teacher can influence the behavior of children, this study more specifically domonstrates that the teacher of advantaged children can generate particular patterns of behavior by using positive reinforcement. The finding that disadvantaged children did not imitate middle-class teachers is a provocative one and certainly makes clear the need for further research.

Source: Feshbach, Norma D. "Effects of Teacher's Reinforcement Style Upon Children's Imitation and Preferences," ***Proceedings of the 75th Annual Convention of the American Psychological Association,*** II (1967), 281-282.

IMITATION OF FILM–MEDIATED AGGRESSIVE MODELS

Purpose: To determine the extent to which film-mediated aggressive models serve as a source of imitative behavior in young children

Review: Forty-eight boys and forty-eight girls ranging in age from two years, eleven months to five years, nine months were divided into one control and three experimental groups, with 24 subjects in each of the four groups. Subjects in each of the experimental groups were subdivided by sex, so that half of the subjects were exposed to models of the same sex as themselves, while the remaining subjects were exposed to models of the opposite sex. Two adults, a male and a female, served as models for the experimental groups and one female adult acted as the investigator for all 96 subjects.

The experimental groups included a Real-life Aggression condition, a Human-film Aggression condition, and a Cartoon-film Aggression condition. Subjects exposed to the Real-life Aggression condition were taken individually by the investigator to an experimental play room and seated in a corner at a table which contained potato prints, picture stickers, and colored paper. The investigator demonstrated how to make pictures with the materials and then took the model, who also had been "invited" to play, to an opposite corner which contained a table, a tinker toy set, a mallet, and a five-foot inflated Bobo doll. After explaining that this was the model's play area, the investigator left the experimental room. The model, after spending approximately a minute assembling the tinker toys, began to attack the Bobo doll, punching it, sitting on it, hitting it with the mallet, and tossing it in the air, while verbally repeating, "Sock him in the nose . . . ," "Hit him down . . . ," "Throw him in the air . . . ," ' Kick him . . . ," and "Pow."

Subjects in the Human-film Aggression experimental group were given treatment similar to that of the subjects in the Real-life Aggression group, but instead of observing a real-life model, these subjects viewed the aggressive conduct of the model in the form of a color movie. The same male and female who had performed "live" for the first experimental condition, were the "actors" in the movie presentation. Their behavior in the movie was identical to their real-life performances.

Treatment for subjects in the Cartoon-film Aggression experimental group differed in that they were exposed to a "cartoon program" supposedly being presented on a color television set. The female model was disguised as a black cat and her voice was made high-pitched and animated. Her aggressive acts in the cartoon were identical to the actions of the models in both the Real-life Aggression and Human-film Aggression groups. In order to increase the level of unreality of the cartoon, artificial grass covered the floor and the background consisted of colored trees, birds, and butterflies. Introductory and closing music was played, and the cartoon was titled "Herman the Cat," so that the program paralleled a standard television presentation.

Control group subjects were not exposed to aggressive models, either in the real-life situations or in the films.

Because the investigators proposed that "the degree to which a child has learned aggressive patterns of behavior through imitation becomes most evident when the child is

instigated to aggression on later occasions," all 96 subjects were mildly frustrated before they were taken to another experimental room to be tested for delayed imitation. The mild frustration consisted of showing each subject a variety of highly attractive toys and telling him that he could play with any of the toys. After the subject had become sufficiently involved with the materials, the investigator remarked that these were her best toys and that she did not let just anyone play with them. The investigator added that she had decided to reserve these toys for some other children, but that the subject could play with any of the toys in the next room. Each subject was then escorted to the adjoining room which contained toys that could be used in either imitative or nonimitative aggression and others which tended to elicit predominantly nonaggressive behavior. Toys intended to arouse aggression included a three-foot Bobo doll, a mallet, a peg-board, two dart guns, and a tether ball with a face on it suspended from the ceiling. Included among the toys not intended to arouse aggression were a tea set, crayons, coloring paper, a ball, two dolls, three bears, cars, and trucks.

The subjects were allowed to play with the toys for 20 minutes, while the male model and a second observer watched their behavior through a one-way mirror, and recorded the responses of each subject. The subjects were rated on six response measures:

1. Imitative aggression—struck the Bobo doll, sat on it, punched it in the nose, and verbally responded with "Sock him," "Hit him down," etc.

2. Partially imitative responses—partially completed the action of the model, or directed the aggression to some toy other than the Bobo doll.

3. Mallet aggression—struck objects other than the Bobo doll aggressively with the mallet.

4. Mild aggression—subject sat on the Bobo doll, turned the doll on its side, sat on it, but did not otherwise act aggressively toward it.

5. Nonimitative aggression—directed aggressive acts toward other toys, and emitted hostile remarks except for those in the verbal imitation category, such as "Shoot the Bobo," "Knock over people," etc.

6. Aggressive gun play—shot darts or aimed gun and fired imaginary shots at objects in the room.

The ratings of responses by the male model who observed all the subjects in the room and by a second observer who viewed 40 percent of the performances yielded high interscore reliabilities with Product-Moment correlation coefficients in the 90's.

The Friedman two-way analysis of variance by ranks was used to test the significance of the differences between the experimental and control groups. Analysis of the mean total aggression scores for subjects in the Real-life, Human-film, Cartoon-film and control groups were significant at the .05 level of confidence, indicating that "exposure of subjects to ag-

gressive models increases the probability that subjects will respond aggressively when instigated on later occasions."

The Wilcoxon matched-pairs signed-ranks test revealed no significant difference in total aggressiveness between subjects who viewed the real-life and film-mediated models. However, all three experimental groups displayed significantly more aggression and performed more imitative physical and verbal aggression than did subjects in the control group. The Friedman analysis indicated at the .001 level of confidence that aggressive responses of subjects can be effectively shaped by exposing subjects to aggressive models. Of the three experimental treatments, "exposure to humans on film portraying aggression was the most influential in eliciting and shaping aggressive behavior." Although subjects who had observed the real-life models revealed significantly more imitative aggression than subjects who had viewed the cartoon model, the Wilcoxon test revealed no significant difference between the film and the cartoon treatments, or between the live and the film treatments. Subjects who had been exposed to humans on film also exhibited more total aggression, more imitative aggression, more partial imitation, and more aggressive gun play than did subjects in the control group. The results of the Wilcoxon and Friedman tests only partially support the investigators' prediction that imitation is positively related to the reality cues of the model.

The effect of the sex of the subjects and the sex of the model on the resulting imitative and nonimitative aggression was investigated by the Mann-Whitney U test. Significant at the .01 level of confidence was the finding that boys exhibited more total aggression and more aggressive gun play than did girls, and at the .005 level of confidence, boys showed more imitative aggression and nonimitative aggressive behavior than girls. Analysis also revealed that at the .005 level of confidence subjects exposed to male models demonstrated more aggressive gun play than subjects exposed to female models, and that males who observed male models exhibited more aggressive gun play (significant at the .001 level of confidence) than did females exposed to female models.

The interaction between sex and model revealed that boys who observed female models were more likely to sit on the doll without punching it than were boys who viewed male models. Girls imitated the nonaggressive component of a male model's behavior more often than did boys who observed the same model. The investigators interpreted these sex-related results as support "for the view that the influence of models in promoting social learning is determined, in part, by the sex appropriateness of the model's behavior."

Conclusion: The investigators concluded that "exposure to filmed aggression heightens aggressive reactions in children." In addition, the filmed aggression effectively shaped the form of the subject's aggressive behavior. Since the subjects modeled their behavior after the film characters, the investigators suggested that "pictorial mass media, particularly television, may serve as an important source of social behavior."

Also, because it was revealed that imitation of aggression was greater for male models than female models and that the greatest imitation was found for boys who had observed the real-life male aggressive model, the investigators concluded that imitation is sex-typed.

Comment: Although this study reveals the effectiveness of increasing the aggressiveness of subjects through exposure to filmed aggression, one should assume the converse, that a young child's social behavior can be modified in a desirable direction merely by exposing him to an appropriate film. The reader should not generalize beyond the findings that films *may* serve as a source of social behavior and that aggression is transferable by film observation. Further research is needed to investigate the transference of positive behavior, such as obedient classroom behavior or respect for teachers, before additional generalizations can be made.

Source: Bandura, Albert; Ross, Dorothea; and Ross, Sheila. "Imitation of Film-Mediated Aggressive Models," ***Journal of Abnormal and Social Psychology,*** LXVI, No. 1 (1963), 3-11.

USE OF THE PREMACK PRINCIPLE IN CONTROLLING THE BEHAVIOR OF NURSERY SCHOOL CHILDREN

Purpose: To control the behavior of nursery school children by application of the "Premack principle"[1]

Review: Three, three-year-old subjects attended nursery school three hours a day, five days a week, for approximately one month. It was found that verbal instructions had little effect in controlling the behavior of these children. If instructed by the investigator to behave in a prescribed way the subjects would only continue the activity in which they had been engaged. For example, if verbally instructed to sit in their chairs, the subjects would continue running and screaming. These adverse behaviors were labeled as high probability behaviors because of the greater possibility of the children performing these types of activities than those behaviors requested by the investigator.

The Premack principle was then applied. In order to increase the probability of the occurrence of behaviors desired by the investigator, the high probability behaviors were made contingent upon desired behaviors and the high probability behaviors were used in combination with signals as reinforcers. For example, a desired behavior (low probability behavior) such as the subjects sitting in their chairs and not speaking, was followed by a signal, the ringing of a bell. Immediately the verbal instruction, "Run and scream," was given by the investigator, and the children would engage in the high probability behavior of running around the room and screaming. Another signal would be an indication for them to stop, followed by a different signal and an instruction to engage in another behavior which, on a quasi random schedule, could be of either high or low probability. Later, the three subjects were given the opportunity to earn tokens for low probability behaviors (desired behaviors). These tokens were then used to "buy" the chance for high probability activities.

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[1]The study discussed is based on the principle evolved by David Premack in the article, "Toward Empirical Behavior Laws: I. positive reinforcement," ***Psychological Review,*** LXVI (1959), 66, 219-233. In capsule form, the Premack principle states: "If behavior B is of higher probability than behavior A, then behavior A can be made more probable by making behavior B contingent upon it."

Premack defines "reinforcement" as "the traditional increase in frequency of an 'R' " (response) and states that reinforcement will result when a response of a lower independent rate coincides with the stimuli governing the occurrence of a response of a higher independent rate. ' Independent rate" is the probability of the occurrence of a particular response or behavior. It is Premack's assumption, then, that the performance of a particular behavior (A) having a low independent rate or low probability of occurrence can be increased by linking behavior A with the signal that elicits behavior B, a response of higher independent rate or higher probability. In the above study, the investigators have linked desired nursery school behavior (low probability behavior) with the stimulus of a bell or verbal signal which governs the occurrence of deviant nursery school behavior (high probability behavior) in order to increase the probability of the desired behavior.

The investigators reported that these measures were highly successful in controlling the behavior of the three nursery school children. After only a few days, the investigators considered the behavior of the children "virtually perfect."

Conclusion: By examining the high probability behaviors, the investigators found that most of them were behaviors "which ordinarily would be suppressed through punishment." They concluded that "the Premack hypothesis proved to be an exceptionally practical principle for controlling the behavior of nursery school subjects."

Comment: This study shows the successful application of the Premack principle in a nursery school setting. High and low probability behaviors would very likely be different for elementary and high school students. For example, in a high school setting a high probability behavior would be talking before the bell rings before class. The bell should be the "signal" for the low probability behavior of silence. This relationship can be developed, though, only if the teacher is consistent and ***immediately*** releases the student into the high probability behavior of talking when the bell rings for the end of class.

Source: Homme, L. E.; DeBaca, P. C.; Devine, J.V.; Steinhorst, R.; and Rickert, E. J. "Use of the Premack Principle in Controlling the Behavior of Nursery School Children," ***Journal of the Experimental Analysis of Behavior,*** VI, No. 4 (October 1963), 544.

EFFECT OF THE SEVERITY OF THREAT ON THE DEVALUATION OF FORBIDDEN BEHAVIOR

Purpose: To compare the effect of a mild threat of punishment with the effect of a severe threat of punishment on the decline of a forbidden activity

Review: Eleven boys and eleven girls ranging from 3.8 to 4.6 years of age participated in this study which was conducted in an experimental playroom. The investigator took each of the children into the room separately and showed him five toys and demonstrated how they worked. He then proposed a game saying, "Suppose you could play with the steam shovel and the tank. Which would you choose?" By this method, using each of the five toys, the investigator had each child rank the toys from most preferred (1) to least preferred (5).

The child was then told that the investigator had to leave the room. He was also told that he could stay and play with any of the toys, with the exception of the one he had ranked second on the preference scale. Half of the children were given the Mild Threat treatment whereby the investigator said that he "would be annoyed" if the child played with the forbidden toy. The remaining children were given the Severe Threat treatment and told that if they played with the forbidden toy the investigator "would be very angry" and would leave, take all the toys with him, and not return. The investigator then left the room and through a one-way mirror observed the subject for ten minutes. Upon reentering the room he allowed the child to play with all the toys for ten minutes, and again performed the paired-comparison test to attain a second ranking. Each subject was tested under both experimental conditions with approximately 45 days separating the treatments.

Results of this initial experiment indicated that for subjects in the Mild Threat treatment, four increased their rating of the forbidden toy, eight decreased their rating, and ten did not change. By comparison, 14 of the subjects in the Severe Threat treatment increased their rating of the forbidden toy, while none decreased their rating, and eight remained the same. A difference score for each subject was calculated by subtracting his second ranking of the forbidden toy in the Severe Threat treatment from his second ranking of the toy in the Mild Threat treatment. Analysis of these scores yielded results significant at the .003 level of confidence supporting the hypothesis that a mild threat of punishment for playing with a desired toy would lead to a devaluation of that toy while a severe threat would not.

A second experiment was then conducted to determine whether the increased liking for the forbidden toy was a function of the Severe Threat or if the investigator had caused the increase merely by calling attention to the toy, or if the child had become more attracted to the toy because he had become bored with the other toys by playing with them. A No Threat treatment was involved in this experiment, and only half of the subjects, selected by randomization, were used. Instead of forbidding the subjects to play with the crucial toy, the investigator merely picked up the second ranked toy and took it out of the room with him. Since, of the eleven subjects in the No Threat treatment, seven increased their evaluation of the toy, four did not change, and none decreased his evaluation, the investigators concluded that the subjects' increased liking for the forbidden toy was not due to the sever-

ity of the threat, but possibly to emphasis, satiation, or some other process. These results were virtually identical to the Severe Threat treatment and were significantly different from the Mild Threat treatment. The investigators stated that in the Mild Threat treatment "the trend toward devaluation of the crucial toy occurred in spite of the general tendency to overrate the toy."

Conclusion: The findings of the study were interpreted within the framework of the theory of cognitive dissonance. In the Severe Threat treatment the child's cognition that he was not to play with the forbidden toy was consonant with his cognition that punishment would occur if he disobeyed. No further justification was needed for his abstinence. However, in the Mild Threat treatment, the child's cognition that he was not to play with the attractive toy was dissonant with his cognition that the toy was attractive. In order to abate this dissonance, the child devaluated the toy. The investigators implied the possibility of producing a lasting change in values through dissonance reduction, and generalized beyond toy preference that a mild threat rather than a severe threat of punishment "may be an effective means of inducing the formation of a system of values in children."

Comment: A young child faced with the fact that he would "displease" his teacher if he performed a certain act, encounters dissonance in his cognitions. He is forbidden to act in a certain way, yet if he does as he wishes he knows nothing severe will happen to him. This presents him with the opportunity to "devaluate" the forbidden act in his mind and to establish a lasting value for respecting the teacher's wishes concerning his classroom behavior.

However, if the child is threatened severely (e.g., staying in at recess and doing additional homework)-- no dissonance occurs. He knows that if he disobeys his teacher, punishment will result. He need not seek another excuse for not performing the deviant act. The teacher, then, might find the use of a mild threat of punishment more effective in derogating and controlling certain deviant behavior of young children than a severe threat of punishment, simultaneously providing an opportunity for the child to develop a lasting system of values.

Source: Aronson, Eliot, and Carlsmith, J. Merrill. "Effect of the Severity of Threat on the Devaluation of Forbidden Behavior," ***Journal of Abnormal and Social Psychology,*** LXVI (1963), 584-588.

THE COMPARATIVE INFLUENCE OF PUNITIVE AND NONPUNITIVE TEACHERS UPON CHILDREN'S CONCEPTS OF SCHOOL MISCONDUCT

Purpose: To study the relationship between punitive and nonpunitive control techniques and children's attitudes toward misconduct

Review: The investigators postulated that "aggression leads to counteraggression" and "that a punitive teacher has more power over her pupils than they have over her and that she blocks overt manifestations of pupils' aggression." From these postulations the investigators posed three hypotheses: (1) "That the school misconduct preoccupations of children with punitive teachers will contain more aggression than those of children with nonpunitive teachers"; (2) "That children with punitive teachers will be more conflicted about school misconduct than will children with nonpunitive teachers"; (3) "That the aggression needs and the conflict relating to misconduct hypothesized to exist among children with punitive teachers will detract from their concern with school-unique values that are not directly related to misconduct." The investigators also raised the question of "whether or not the amount of tension generated in the children with these particular punitive teachers is sufficiently great to reduce the rational qualities of their attitudes toward misconduct."

Seventy-four boys and one hundred girls of a large public school system were interviewed during the third month of the first grade and were asked: "What was the worst thing a child could do at school?" and "Why is that so bad?" The two questions were repeated using "home" as the milieu for misbehavior. The replies were coded for content and the explanation of the misconduct. The code for misconduct included the act type (physical or psychological assaults, etc.) and the object of the misconduct (parents, teachers, other children). Included in the code for explanation of the misconduct were the following questions: (1) Who is involved in the consequence? (2) What kinds of sufferings result to others from the misconduct? (physical, achievement loss, etc.) and (3) What kinds of retributions occur to the misbehaver? (work imposal, physical punishment, etc.). On the basis of these questions the following coding system was devised:

Coding of Misconducts and Explanations

I. Content and quality of the misconducts:

A. Physical assaults on others – includes all physical attacks (Ex. hitting)

B. Milieu-serious misconducts – refers to the length to which the milieu would go to prevent such an act. Ex. The school would ignore "scratching head", but would go to any length to stop burning down buildings.

C. Coder-serious misconducts – refers to the general immorality or danger in the misconduct considered from the point of view of the overall culture. Ex. "Studying spelling at the wrong time" is morally trivial, while "maiming someone" is morally very serious.

D. Abstract Misconducts – refers to the size of coverage. Ex. It may range from a unique, one-time misbehavior, such as "cut a climbing rope in gym", to an abstract one, such as, "be mean to other people."

II. Content and quality of the explanations:

A. Peers as objects of consequences.

B. Physical damage to objects of consequences.

C. Serious harm to others. – "seriousness" can range from "he'd be annoyed" to "he'd die."

D. Reality-centered retributions – (scored only when the perpetrator himself suffers in the consequence) coded when the consequence of a misconduct follows naturally from the act-type, such as: "not study because you'll get behind in your work."

E. "Reflexive justifications" as explanations – coded when the child gave no consequence for either himself or others in his explanation of why the act was bad. Reasons such as "It's not nice" and "It's bad" were called reflexive justification.

III. Role of self in misconducts:

A. Ego-alien misconducts – expression of abhorrence at seeing himself as the perpetrator of the misconduct. Ex. "It's dirty to hit little kids who didn't do nothing to you."

B. Premediated misconduct – sought to learn the extent to which the child sought to do wrong. If premediated the child plans the act and intends the consequences ahead of time, such as "Put thumb tacks on the teacher's chair when she is out." If intentional, the child accepts his part in the wrong doing but does not plan it such as "talking during a lesson."

IV. Aggression:

A. Overall aggression ("blood and guts") – refers to the amount of aggression the respondent expresses in his misconducts and consequences. "Play in the storage bin because somebody might get hurt" expresses less aggression than "Play in the storage bin because you might push a kid off and there could be a sharp rock down there and he could hit his head against it and crash open his skull and he would bleed and his brains would fall out and he'd die."

V. Concern with school-unique objectives:

A. Learning and achievement losses – coded when interference with learning is the misconduct or explanation, such as: "It's bad to make noise because somebody could make a mistake in his work."

B. Institutional law violation – violation of the rules of the school such as: "talk when you're supposed to study," and "not take your seat when the bell rings."

Three punitive teachers and three nonpunitive teachers, all rated as having good organization and well-behaved classes, and as achieving the learning objectives for the first grade, were selected by observations and unanimous ratings by the principal, assistant principal, the two investigators, and a supervisor of student teachers. The extremely punitive teacher was defined as one who "threatens children with consequences that really hurt; make threats that imply sharp dislike; real willingness to harm the child; and ever readiness to punish." A nonpunitive teacher was defined as one who "does not punish and does not threaten." Eighty-four of the selected children were instructed by the punitive teacher, and ninety were taught by the nonpunitive teacher.

The data were analyzed only for school misconducts since only two of the 48 comparisons of home responses were significant for differences between children with punitive and nonpunitive teachers. Intercoder reliabilities with a median of 90, ranged from 73 to 95 percent agreement.

Analysis of data by the Chi-square test supported the first hypothesis that "punitive teachers will create or activate more aggression-tension than will nonpunitive teachers." Responses from children with punitive teachers showed more sheer aggression in their acts and

gave more milieu and coder serious misconduct; their objects of misconducts suffered more harm, the act-types included more physical assaults, and their targets suffered more physical harm than did children with nonpunitive teachers. Targets of children with nonpunitive teachers suffered more psychological loss than physical injury.

The second hypothesis, "that children with punitive teachers will be more conflicted about school misconduct than will children with nonpunitive teachers," was also supported. Children with punitive teachers revealed premeditated and ego-alien misconducts, while children with nonpunitive teachers expressed conducts in which their own part was intentional. The investigators stated that "children with punitive teachers express more abhorrence for the misdeeds which they have selected and yet select misdeeds which require 'malice and forethought'."

Also supported was the third hypothesis, "that the aggression needs and the conflict relating to misconduct hypothesized to exist among children with punitive teachers will detract from their concern with school-unique values that are not directly related to misconduct." Children taught by nonpunitive teachers were more concerned with learning, achievement losses, and violation of school-unique values and rules, while children instructed by punitive teachers expressed concern with physical assaults on peers in any setting.

A definitive answer was not found to the question put forth by the investigators. No significant differences were found between the two groups in attempts to measure "whether or not the amount of tension generated in the children with these particular punitive teachers is sufficiently great to reduce the rational qualities of their attitudes toward misconduct." However, it was revealed that children with punitive teachers cited fewer abstract misconducts and fewer reflexive justifications than did children with nonpunitive teachers. The investigators offered two possible explanations: (1) to regard these as indications of the unsettled and conflicted state of the attitudes regarding misconduct held by children with punitive teachers or (2) to regard the greater use of reflexive justifications by children with nonpunitive teachers as evidence of greater trust and faith in school, that is, of their internalization of school values.

Conclusion: The investigators summarized their results with the assertions that "as compared with children who have nonpunitive teachers, children who have punitive teachers: (1) manifest more aggression in their misconducts; (2) are more unsettled and conflicted about misconduct in school; (3) are less concerned with learning and school-unique values; and (4) show some, but not consistent, indication of a reduction in rationality pertaining to school misconduct." In addition, the investigators proposed the theory that children with nonpunitive teachers develop more trust in school than do children with punitive teachers.

Comment: It seems likely from this study that a teacher with a nonpunitive attitude would be likely to have more success at controlling the aggressiveness of first graders than a teacher who severely punishes and threatens. Avoidance of the punitive approach (as defined in the study) should result in the development of a better understanding of what actions are right

and wrong, a nurture of a greater trust in school, and the early establishment of concern for the main objectives of school — learning and achievement.

Source: Kounin, Jacob S., and Gump, Paul V. "The Comparative Influence of Punitive and Nonpunitive Teachers Upon Children's Concepts of School Misconduct," ***Journal of Educational Psychology,*** LII, No. 1 (1961), 44-49.

PERMISSIVENESS, PERMISSION, AND AGGRESSION:

THE EFFECT OF ADULT PRESENCE OR ABSENCE ON AGGRESSION IN CHILDREN'S PLAY

Purpose: To investigate "session-to-session differences in aggression in children's play in the absence of an adult relative to such differences in the presence of an adult"

Review: The investigators believed that aggressive behavior is influenced by four factors: (1) the strength of the child's aggressive drives, (2) the child's attitude toward aggression, (3) the attitudes of other people present in the setting for aggression, and (4) the expectation that aggression will result in counteraggression or punishment. The investigators hypothesized that in the presence of a permissive adult, that is, one who is accepting and nonjudgmental and who allows the child to behave as though an adult were not present, a child's aggression would increase. In this situation it was believed that the child would infer from the behavior of the adult that this is a setting in which aggression is suitable or appropriate (Factor 3), and with experience the child would undergo a progressive decrease in inhibition based on fear of punishment (Factor 4). However, it was believed that in the absence of an adult, a child's aggression would decrease from session-to-session, since no adult would be present to "define the social situation and to express expectation of his behavior in it." In this situation, after a child had initially released his aggression, it was theorized that he would rely on his own learned standards of conduct in additional sessions (Factor 2).

On the basis of these assumptions, the investigators tested the hypothesis that "children under the two conditions will exhibit different session-to-session changes in aggression, in that the aggression of the children under the adult-absent condition will tend to decrease in comparison to the aggression of the children under the adult-present condition, which will tend to increase."

Because the investigators held that boys display a greater amount of aggression than girls, only male nursery school children were involved in this study. Eighteen pairs of boys, one member from among the upper 50 percent in age and the other from among the lower 50 percent in age, were assigned at random to the two experimental treatments: Adult-Absent and Adult-Present. Each pair participated in two play sessions which took place two days apart. During each of the two sessions, the investigator took each pair of boys to a small playroom in the nursery school building, and after they were seated, read them a simple animal story which was neutral with respect to aggression. The stories for the two sessions were different, but similar in the nature of content. After the story had been read, the investigator invited the two boys to play with any of the toys in the room. The toys included two rubber daggers, two small plastic toy guns, one singing-spinning top, two lumps of clay, a small wooden train composed of detachable cars, three small metal automobiles,

five or six inflated balloons, a small clown toy which was weighted to remain erect, and a large inflated plastic punching toy which stood child height.

Children in the Adult-Present treatment were allowed to play with the toys while the investigator sat in a chair at one side of the playroom. She was friendly and displayed interest, yet did not initiate any conversation with the boys. For the boys in the Adult-Absent condition, the investigator excused herself, saying she had work to do in another room, and that she would not bother them. She instructed the boys to play with the toys until she returned and mentioned that when she did return she would knock on the door before entering so as not to intrude on their privacy.

Each pair in both experimental treatments was allowed to play with the toys for 14 minutes during each of the two sessions. During this time, a trained observer, unaware of the purpose of the study, watched the play of the boys from behind a one-way mirror and rated the aggression of the older boy in each of the pairs. Every 20 seconds, the older boy was rated either an 0 (no aggression), 1 (mild or playful aggression), 2 (stronger or more forceful aggression), or 3 (intense aggression in which the child seemed highly involved). Each subject's aggression score for a play session was the sum of the ratings he received for each of the 20 one-second intervals.

A difference score was obtained for the older boy in each of the 18 pairs by subtracting his Session II aggression score from his aggression score during Session I. The Mann-Whitney U test was performed on the differences and revealed that subjects in the Adult-Absent setting showed less aggression in Session II than in Session I, while two-thirds of the subjects in the Adult-Present setting showed more aggression in Session II than in Session I.

Conclusion: The hypothesis that children in an Adult-Absent treatment would tend to decrease in aggression, while children in the Adult-Present treatment would increase in aggression, was supported. In a discussion of the implications of this study, the investigators refer to the phenomenon of "spontaneous establishment of substitute controls," discussed by Redl and Wineman in ***The Aggressive Child: Children Who Hate.*** Briefly, this means that due to the presence of an adequate outside control force, such as an authority figure, normal children do not always have the control system of their egos "switched on to its full volume [in order] to keep things from getting disorganized." When these outside control forces are absent, "even well-adjusted children have trouble keeping to the level on which they were performing" before the loss of the outside force. This could account for the noise that often results in a classroom when a teacher leaves the room. Redl and Wineman state that "the normal child is supposed to have some reserves to institute inside controls quickly after the outside ones have petered out."

In terms of this study, subjects in the Adult-Absent experimental treatment, spontaneously established "substitute controls," that is, their ego control was "switched to high," when the outside control force of the experimenter was removed. However, the ego-control of subjects in the Adult-Present treatment could be "switched to low" since they were receiving support from an outside force, the investigator. The investigators suggest that a

method for determining a child's ego strength, or the maturity in the control of his behavior, would be to compare his behavior in both the Adult-Present and the Adult-Absent situation, and to observe if the child, in order to maintain order, can switch from "low ego control" to "high ego control" when the authority figure leaves.

Comment: In order to give elementary school children an opportunity to develop self-control, that is, maturity in the control of their own behavior, they should be presented with situations in which the outside control of an authority figure, the teacher, is absent. Occasions of short duration of teacher absence from the classroom would give the children an opportunity to "institute [their] inside controls" after the outside control had been withdrawn. In this way, the teacher can gradually develop in each child a sense of responsibility for his own actions. If later a situation arises whereby the teacher must suddenly leave the room, she could be more confident that order would be maintained.

Source: Siegel, Alberta Engvall, and Kohn, Lynette Gayle. "Permissiveness, Permission, and Aggression: The Effect of Adult Presence or Absence on Aggression in Children's Play." *Child Development,* XXX (1959), 131-141.

THE RIPPLE EFFECT IN DISCIPLINE

Purpose: To determine the factors that influence the reaction of children who are watching a teacher control a misbehaving child

Review: For this study, 26 kindergarten classes served as the subjects with 51 undergraduates functioning as the observers of these classes. Observers were instructed to record any incident in which a child watched the teacher reprimand another member of the class for misbehaving. The observers recorded the behavior of the watching child before the correction, of the teacher and the misbehaving child during the incident, and finally, of the watching child for two minutes after the incident. A total of 406 incidents were reported.

The teachers used three control techniques in their corrections of the misbehaving children: clarity, firmness, and roughness. "Clarity" referred to the clearness of the instructions which told the child what behavior was unacceptable. "Firmness" meant how much "I-mean-it" the teacher put into her disciplinary action. Walking near the child and speaking emphatically were considered actions high in "firmness." "Roughness" was defined as any technique used by the teacher that expressed "hostility or exasperation," for example, an angry look.

The watching children reacted in five different ways to the correction of a misbehaving child: (1) no reaction—the child merely continued what he was doing before the observation; (2) behavior disruption—the child lost interest in what he had been doing and became worried and restless; (3) conformance—the child made a special effort to be good; (4) nonconformance—the child was apparently not deterred by what he had just observed and misbehaved; (5) vacillation between conformance and nonconformance—the child both conformed and misbehaved.

The impact of the setting was investigated for each disciplinary incident by answers to three questions: (1) "What was the watching child doing just before the incident?"; (2) "Was the watching child psychologically close to the child who was being corrected?"; and (3) "How long had the watching child been in kindergarten?"

The Chi-square test was applied to analyze the children's reactions to the teacher's control techniques. Results, significant at the .01 level of confidence, indicated that increased conformance and decreased nonconformance resulted when the teacher's control techniques involved "clarity," while decreased conformance and increased nonconformance occurred when the teacher failed to make clear what action she expected of the child. No significant relationship existed between "firmness" and the watching children's reactions. "Roughness" was found to be significantly related to the responses of the children, since "rough" control techniques resulted in an increase in behavior disruption.

Analysis of data comparing the impact of the setting to the reaction of the watching children revealed that to the .001 level of confidence, children who were misbehaving showed more conformance, more nonconformance, and more vacillation between conformance and nonconformance than did children who at the time of the disciplinary action were not misbehaving. Children who were behaving were not likely to show a reaction to the control technique of the teacher. Another significant relationship was found between the

length of time the children had been in kindergarten and their reactions to the control techniques. On the first day of kindergarten the children overtly reacted to 55 percent of all control incidents, while on the following three days they reacted to only 34 percent of the incidents.

Conclusion: Three factors were revealed that relate the reactions of children watching a teacher control a misbehaving child. The first factor was the newness of the situation, since on the first day of kindergarten the children were highly sensitive to control techniques. The behavior of the children who were watching was the second factor, with those children who were psychologically close to the misbehaving child—that is, children who were themselves misbehaving—reacting most strongly to the teacher's reprimand. The third factor was the control or disciplinary technique (clarity, firmness, or roughness) employed by the teacher, with results indicating that conformance will result when the teacher makes clear what behavior she objected to or what behavior she expected. It was also shown that children who were psychologically close to the misbehaving child increased their conformance when the teacher's behavior conveyed "firmness." However, roughness succeeded only in producing behavior disruption. The investigator concluded that severe techniques did not encourage better behavior in the watching child but did tend to upset him.

The investigators stated their belief in the existence of the "ripple effect" or "the influence that control techniques have—not on the children who are being disciplined—but on the other children who are watching and listening." They suggested that the best way generally to control ripple effects is to give clear instructions and to reserve "firmness" for those disciplinary incidents when the watching children are inclined to "deviancy."

Comment: Since this study offers evidence for the existence of a "ripple effect," the kindergarten teacher should be cautious in her manner of disciplining a single child. Discipline is seldom handled in a one-to-one ratio, that is, a teacher seldom disciplines a child in a setting where the remainder of the class is not present. In an ordinary classroom situation, the teacher should always be aware that she is never really reprimanding only one student. Her manner of handling one child is almost certain to affect other children in the class psychologically. The best method for insuring good ripple effects seems to be the teacher's use of "clarity" which can be achieved by clearly stating the action that is wrong, by stating the more acceptable behavior, or by instructing the child how to stop misbehaving.

Source: Kounin, Jacob S., and Gump, Paul V. "The Ripple Effect in Discipline," ***The Elementary School Journal,*** LIX (December 1958), 158-162.

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